



BALLAST CIRCUIT HAVING ENHANCED OUTPUT ISOLATION
TRANSFORMER CIRCUIT WITH HIGH POWER FACTOR

Mihail S. Moisin
Application No.: 10/701,033
Replacement Drawing

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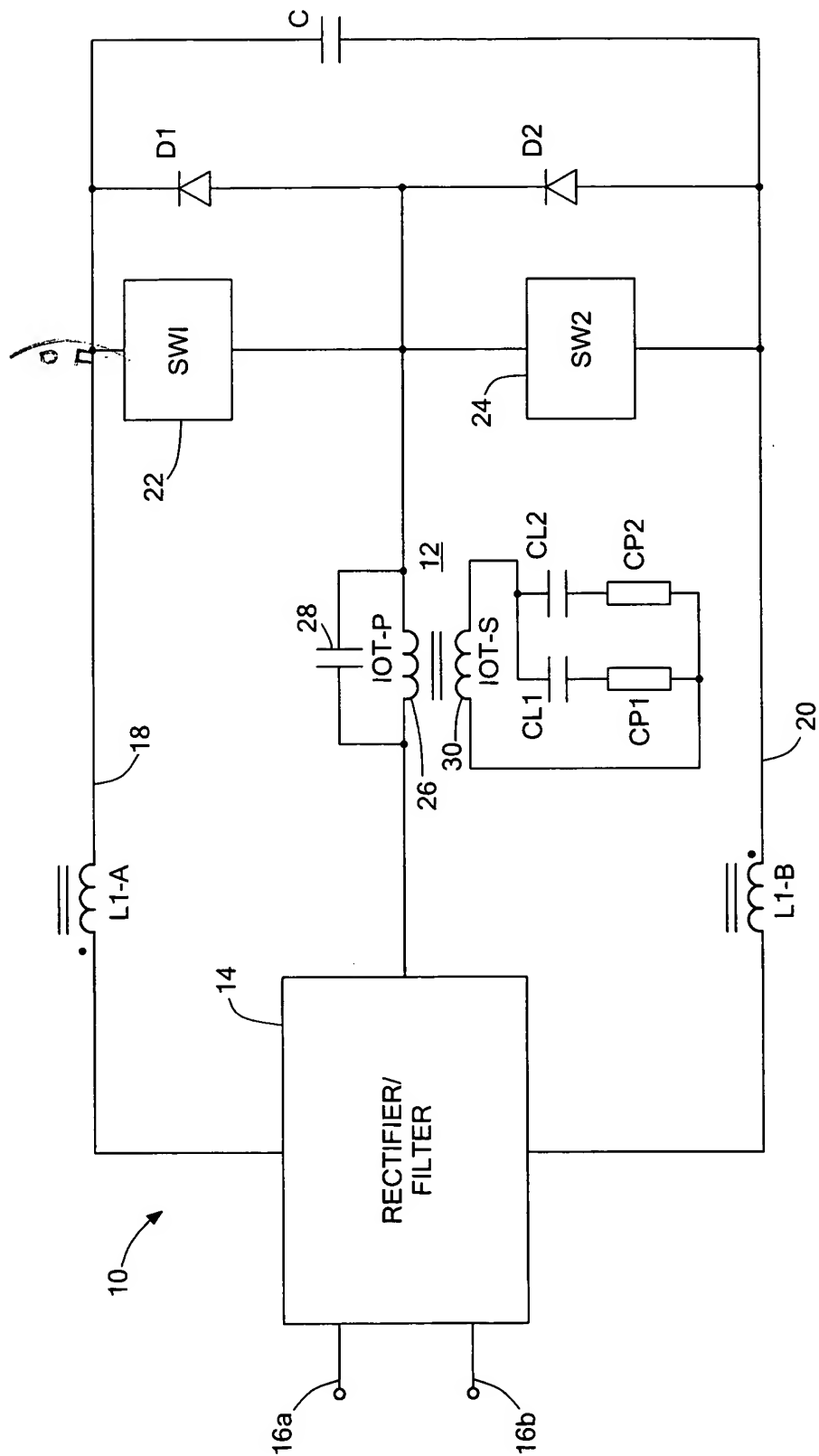


FIG. 1 Prior Art

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FIG. 2

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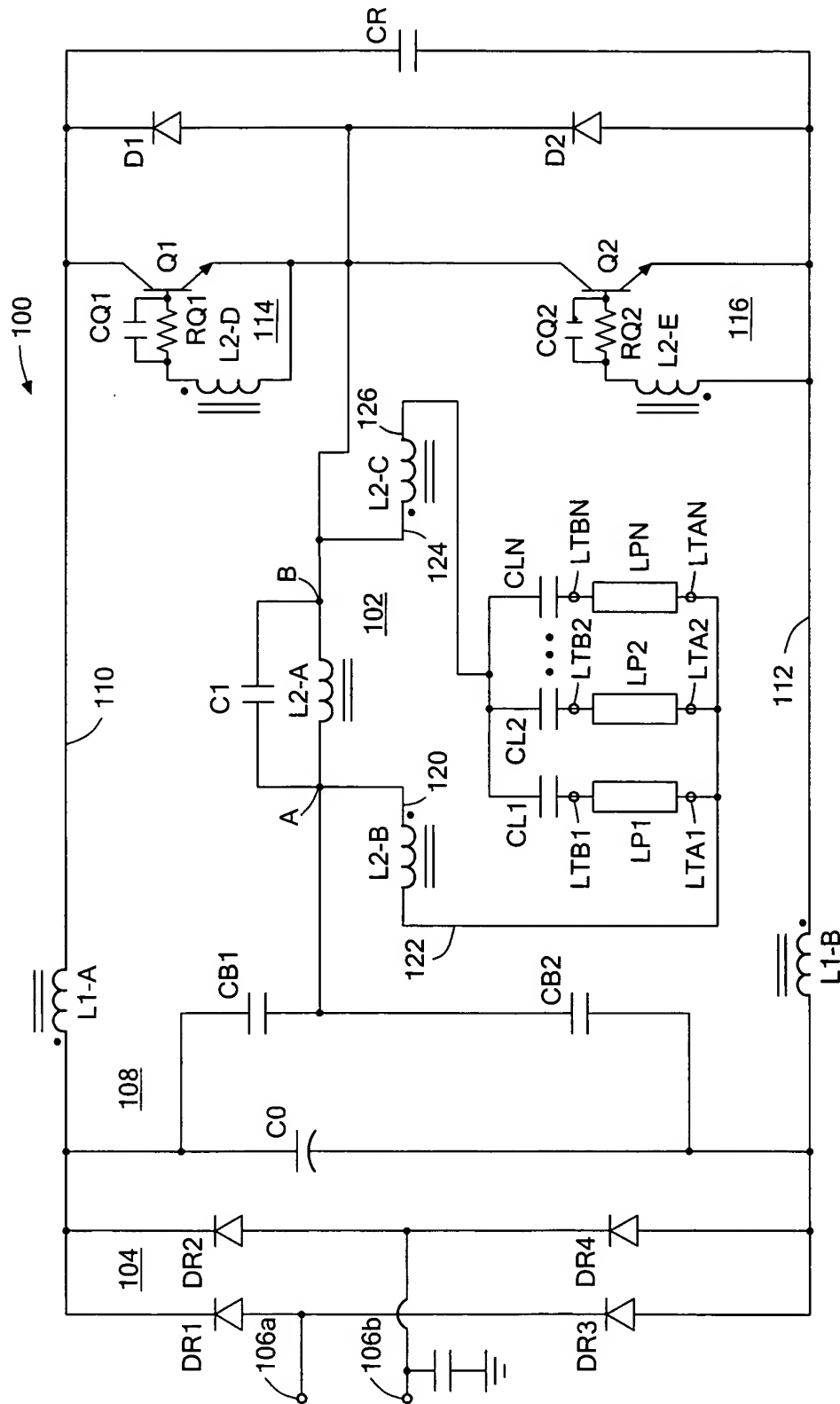


FIG. 3

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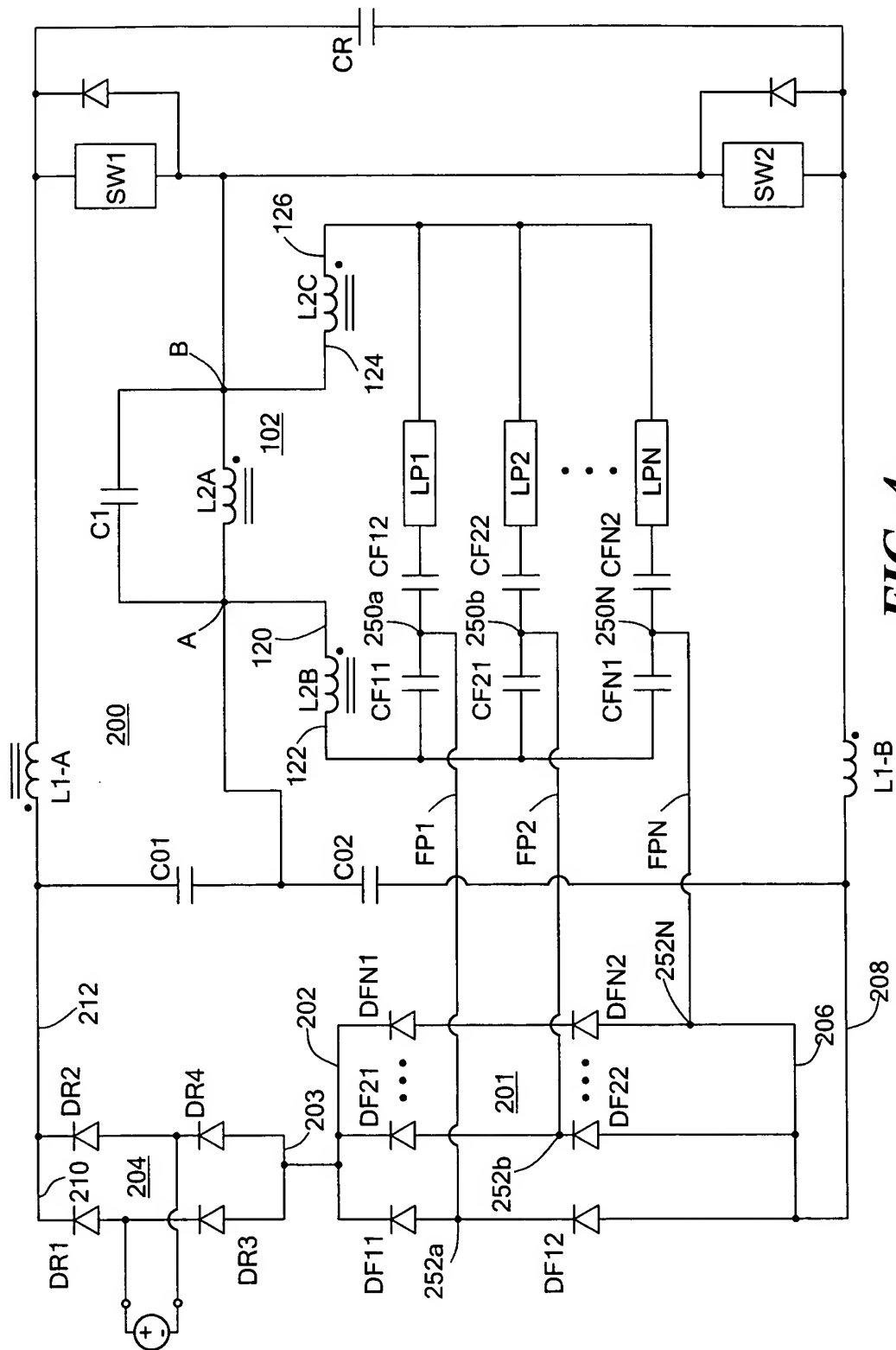


FIG. 4

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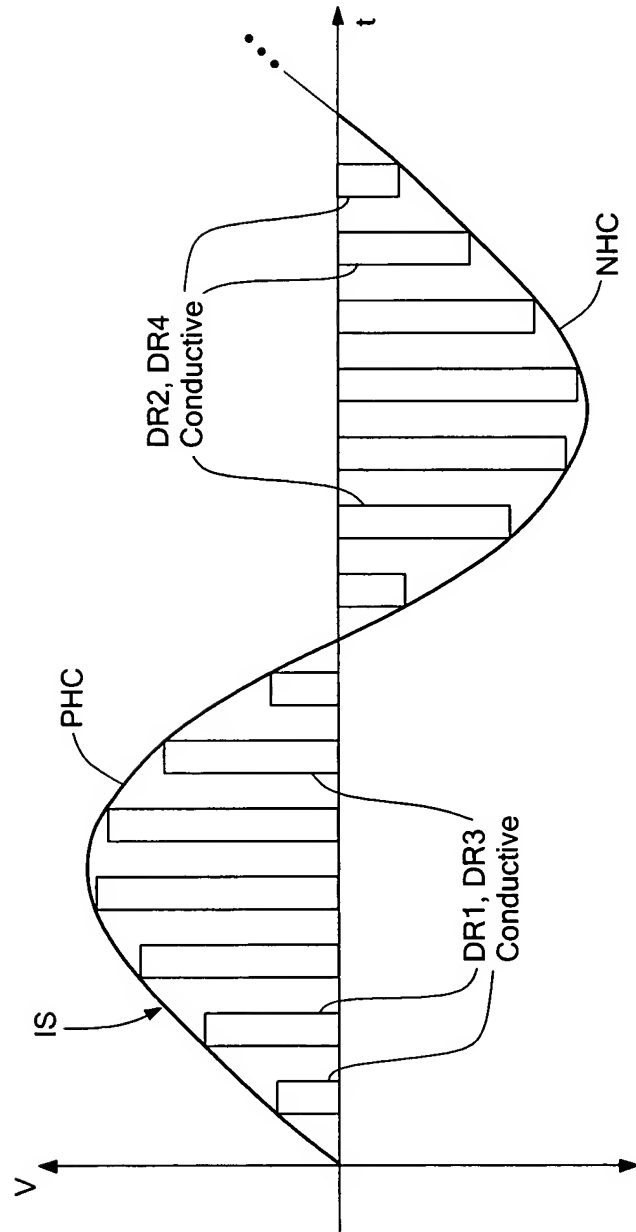


FIG. 5

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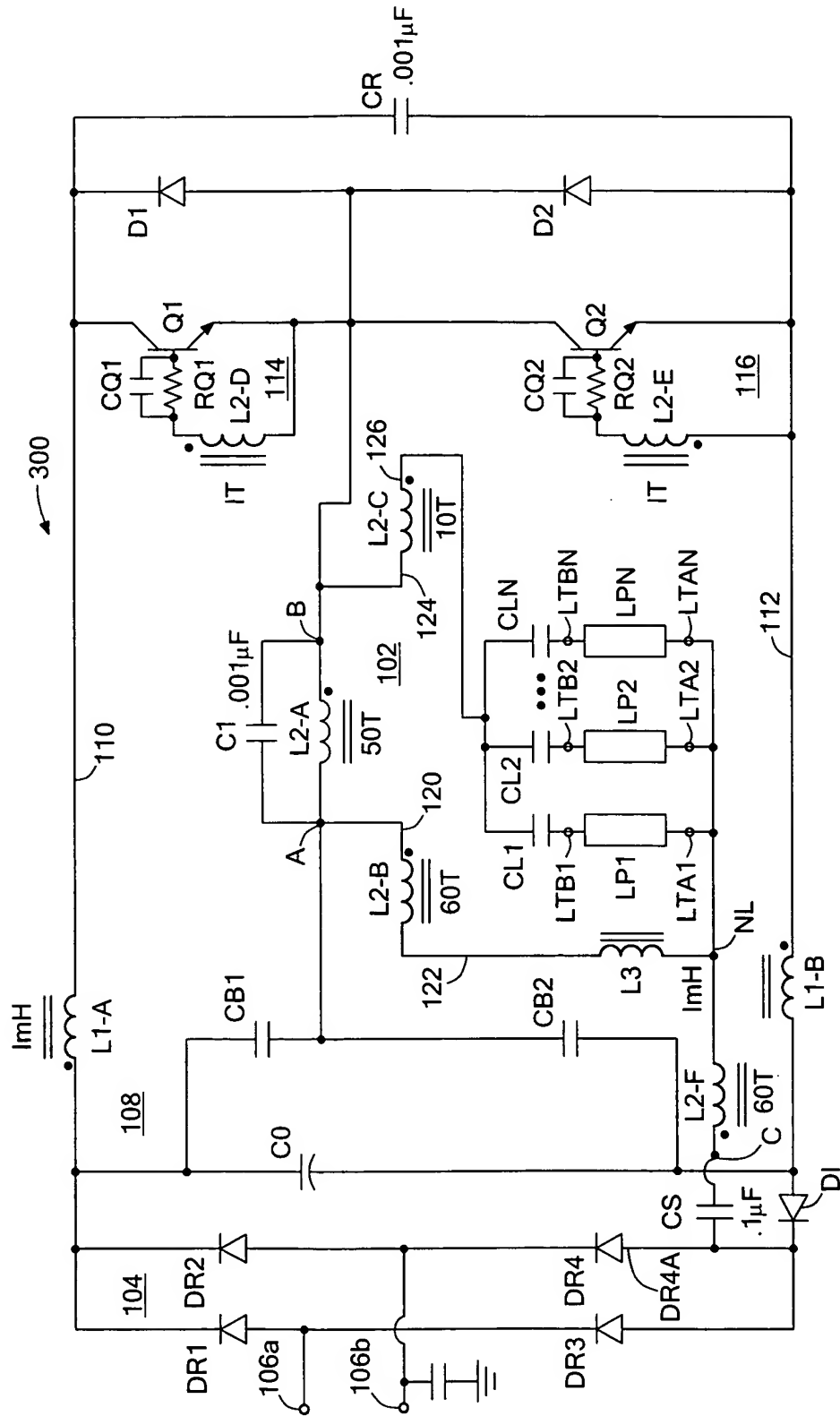


FIG. 6

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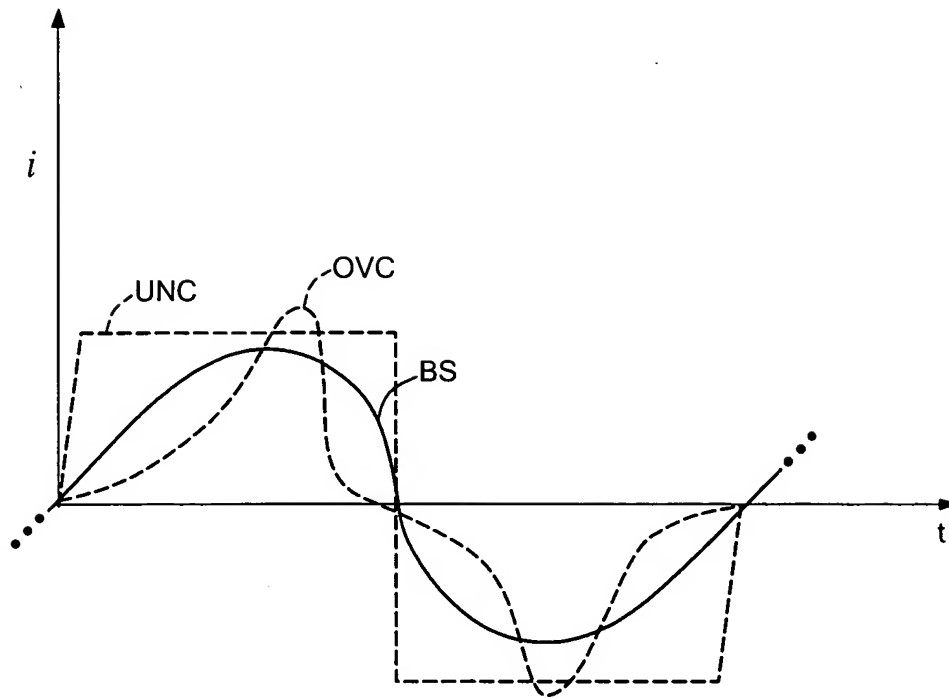


FIG. 6A

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The schematic diagram illustrates a power supply system 300'. It begins with a transformer 104 connected to a rectifier bridge 106a. The bridge consists of four diodes: DR1, DR2, DR3, and DR4. The output of the bridge is connected to a filter capacitor 106b. The system then transitions to a switching regulator 110, which includes a MOSFET 114, an inductor 120, and a diode 122. The MOSFET 114 is driven by a gate driver circuit 112, which includes a network of capacitors (CL1, CL2, CLN), inductors (LTA1, LTA2, LTB1, LTB2, LTN), and resistors (LP1, LP2). The output of the switching regulator is connected to a load 116 through a diode 118 and a capacitor 124. The entire system is powered by a transformer 104 and a rectifier bridge 106a.

FIG. 7

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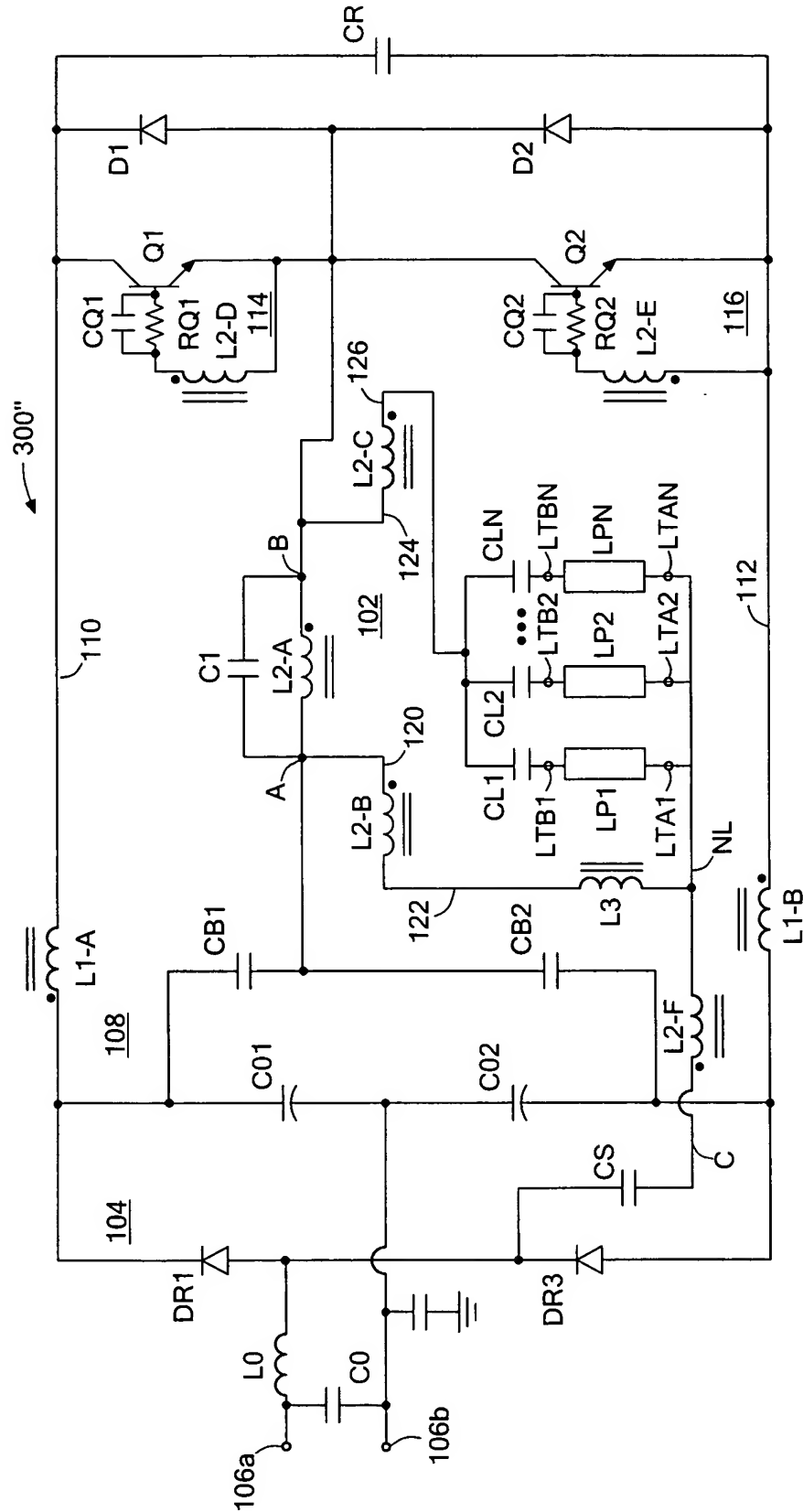


FIG. 8

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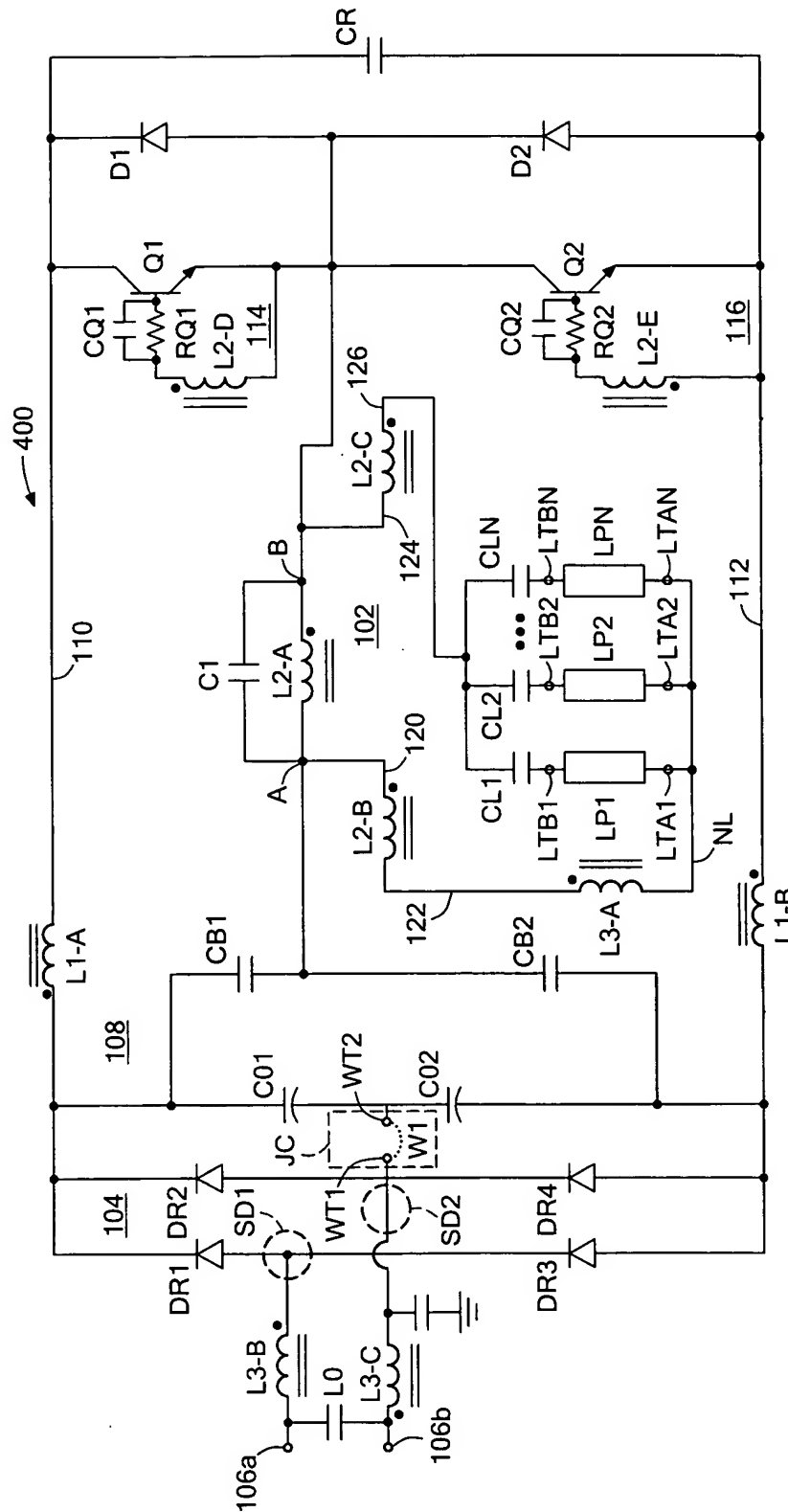


FIG. 9A

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FIG. 10